GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:1894
ANSWERED ON:09.03.2016
Safety of NPPs
Biju Shri Parayamparanbil Kuttappan;Innocent Shri

Will the Minister of ATOMIC ENERGY be pleased to state:

(a)whether the Government has made any assessment about the safety of the nuclear power plants in the country and if so, the details thereof;

(b)whether the safety parameters in India are at par with the standards set by the IAEA;

(c) if so, the details thereof and if not, the reasons therefor; and

(d)the steps taken by the Government to ensure safety of the nuclear power plants?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a)Yes, Sir. The safety reviews of the Indian Nuclear Power Plants (NPPs) are carried out by the regulatory authority, the Atomic Energy Regulatory Board (AERB). All nuclear power projects undergo an elaborate in-depth safety review during their various consenting stages, viz. siting, construction, commissioning, etc. After satisfactory review during project stage, AERB issues operating license to an NPP for a period of up to five years. During the license period, safety performance of an operational NPP is continuously monitored in compliance with regulatory guidelines. In addition, a minimum two regulatory inspections of each NPP are also carried out in a year to assess its actual safety status and to verify compliance with various requirements specified by AERB in its safety documents.

Renewal of license of an NPP is done based on detailed safety reviews of the plant. These safety reviews are of two types: a limited scope safety review called Application for Renewal of Authorization (ARA) and a very comprehensive full scope review called Periodic Safety Review (PSR). The ARA and PSR are carried out alternatively in every 5 years.

The detailed assessment of the safety of NPPs based on PSR is carried out in accordance with the guidelines given in AERB safety guide AERB/SG/O-12 on "Renewal of Authorisation for Operation of Nuclear Power Plants". Safety assessments performed during PSR takes into account improvements in safety standards and operating practices, cumulative effects of plant ageing, modifications, feedback of operating experience, probabilistic safety assessments and development in science and technology.

Use of operating experience feedback for enhancing safety of NPPs has all along being accorded high importance in India. Lessons learned from Three Miles Island, Chernobyl, Fukushima accidents and from several other operational incidents in NPPs in India and abroad, as also from new knowledge gained through research have been appropriately used for design and procedural improvements to enhance safety of the NPPs. After the accident at Fukushima NPPs, safety reviews of all Indian NPPs were carried out by NPCIL as well as by AERB independently. These reviews while reconfirming inherent strengths in design, operating practices and safety regulation of Indian NPPs, have identified some additional strengthening measures for safely handling extreme events exceeding the design basis of the NPPs, which are implemented.

(b)&(c) Yes, Sir. The safety requirements for nuclear power plants are established and enforced in India through the Safety Codes, Safety Guides, Safety Manuals and Technical documents developed by the AERB. These documents are prepared in line with the relevant IAEA Safety Standards and takes into account the national requirements and experience.

(d)As per the details given at (a) above.

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